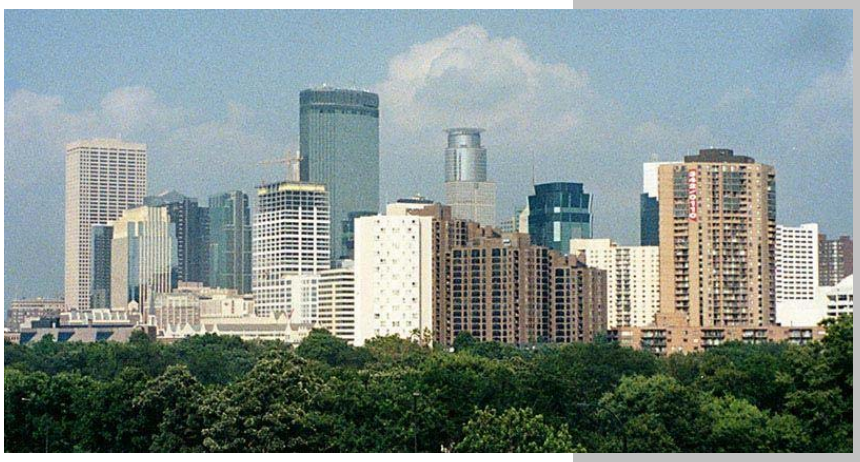
Safety Program and Emergency Procedures for High-Rise Buildings



Minneapolis Fire Department

To High-Rise Building Owners or Managers:

August 2001

To assist you in setting up your Emergency Action Plan, we have compiled a booklet of some of the points that you will be covering in your plan.

The majority of the guidelines in this booklet are suggestions that can be used to set up your program. The Fire Safety Director will set up a plan that is the best for his or her building.

To have your Emergency Action Plan approved by the Fire Department, the plan will have to meet the requirements of the High-Rise Fire Safety Ordinance which is outlined in this booklet.

Fire Department
350 South 5th Street, Room 230
Minneapolis, MN 55415-1387
Office 612 673-2890
Fax 612 673-2828

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High-Rise Safety Program

Introduction

The need for high-rise safety has increased the need for development of a program to provide greater life, safety, and property protection in those buildings which, because of their height, represent a unique fire problem.

The City of Minneapolis has over 150 high-rise buildings and more are in the planning stage. Many of the older buildings were built before the enactment of modern day fire codes and ordinances. Studies should be done on older buildings to identify the problems, determine solutions, and implement these solutions within the framework of a viable program. With this in mind, it was felt that we needed a comprehensive High-Rise Fire Safety Program.

This program should also cover other situations, such as medical emergencies, bomb threats, tornadoes, violent wind storms, and elevator emergencies. The success of this program will depend to a great extent on the effort of the parties involved.

Definition

The term “high-rise building” means any building having floors used for human occupancy located more than 75 feet above the lowest level of Fire Department vehicle access.

The Problem

Life Hazard

A high-rise building may contain a few hundred or more occupants. Depending on the type of occupancy of the building, these people may be children or senior citizens, physically impaired, asleep or transitory. The height of the building may make evacuations very time consuming, if not impossible in time of emergency.

Structural Deficiencies

There is the possibility that a fire in a high-rise building would be confined to the compartment or floor on which the fire originates. If a building is sprinklered, there is a good chance that the fire will be confined to that area. If the fire integrity of the compartment has been violated due to remodeling or new construction, possibility of fire spread is greatly increased. A heavy fire load may also cause extension of fire to upper floors by way of windows. The increased amounts of fire will add to the danger to the occupants. Fire doors propped open will allow the fire to spread to other areas. Improper maintenance of fire protection equipment could cause a malfunction, making their value doubtful.

Tactical Limitations

Firefighting tactics are limited in high-rise fires. The time involved in getting to a fire and the conditions under which the fire has to be fought contribute to the problems. Ladders will only reach to the sixth and seventh floors. The availability of elevators to get to the fire will force the use of stairways which could be occupied by occupants of the building. This will definitely increase the time involved in getting to the fire. This in turn would increase the spread of fire, thus increasing the firefighters' problem. This is not a complete list of conditions encountered in high-rise fires, in fact it only hints at the size of the problems.

Goals and Objectives

The primary goal for the high-rise safety program is to provide protection for occupants and to reduce damage or destruction to the building and its contents. The following objectives need to be developed:

- Fire Safety planning
- Evacuation planning
- Safety Control Team development
- Fire Prevention program

High-Rise Building Safety Personnel

1. Fire Safety Director

2. If any assistance is needed, the following positions are possibilities:

    - Assistant Fire Safety Director
    - Floor Captain
    - Floor Warden
    - Building Engineer

The above members could be called a Safety Control Team.

Obtaining Objective

The program will coordinate the efforts of the Fire Department and the building owner or his/her authorized agent toward the attainment of its objectives by:

1. Defining and clarifying the responsibilities of the building owner and his or her authorized agent and the High-Rise Coordinator for fire prevention inspections, fire safety planning, evacuation planning, and safety control team development.
2. Gaining knowledge of the high-rise structure to enable the Fire Department to conduct effective firefighting and rescue operations should a fire occur.
3. Correcting hazards found in the high-rise building by the Fire Department personnel, Fire Prevention Bureau, and the building owner or his or her authorized agent, through education, advisement, and enforcement.
4. Implementing an in-building safety control team with which to resolve the issue of fire safety planning and evacuation procedure.
5. Providing information and assistance, through the Minneapolis Fire Department, on fire prevention inspections, fire control activities, rescue procedure, and evacuation procedures.

Duties of the High-Rise Safety Coordinator

1. The coordinator of the High-Rise Safety program shall be a Fire Captain assigned to the Fire Prevention Bureau.
2. He or she shall be the liaison between the Fire Safety Directors and the Fire Department.
3. He or she shall set up guidelines for the High-Rise Fire Safety program.
4. He or she will maintain a file with evacuation and Fire Safety plans and related activities for each high-rise building.

Duties of the Building Owner or Authorized Agent

General

The owner or other person having charge of buildings identified as a high-rise building in the building code shall be required to prepare and submit for the review and approval of the Chief of the Fire Department an emergency action plan as set forth in this section.

Emergency Action Plan

An emergency action plan shall be prepared in accordance with the requirements of the Fire Department, which shall be distributed to the tenants and building service employees. Tenants shall distribute to their employees applicable parts of the Emergency Action Plan which affect their action in the event of a fire or an

emergency, and said plan shall be conspicuously posted in each hotel guestroom, office area, and other locations as required by the Fire Department.

Responsibility to Update Emergency Action Plan

The owner or his or her agent shall promptly update the Emergency Action Plan upon changes in occupancy, use, or physical arrangement.

Pursuant to the Minneapolis High-Rise Building Fire Prevention Ordinance and Regulations, the Minneapolis Fire Department, through the Fire Chief, has determined that the building owner or authorized agent shall be accountable for the following requirements:

Emergency Action Plan

1. A plan should be established that describes the procedures to be followed in the event of fire or other emergencies. This plan shall be developed in accordance with regulations promulgated by the Fire Department, approved by the City Council, and shall include, at a minimum, the following:

    - The procedure for communicating an alarm.
    - The procedure for evacuating or relocating building occupants and, specifically, handicapped individuals; and
    - The procedure for conducting fire drills.

2. The applicable parts of the emergency action plan shall be distributed to all regular building occupants and conspicuously posted in each hotel guestroom, office area, and other locations as required by the Fire Department.

3. Upon changes in occupancy, use, or physical arrangement, the emergency action plan shall be promptly reviewed and updated.

Fire Safety Director

The owner or authorized representative shall assign a responsible person as Fire Safety Director to work with the Minneapolis Fire Department in the establishment, implementation, and maintenance of the emergency action plan.

Fire Drills

1. Fire drills shall consist of, at a minimum, testing the alarm communication procedure described in the Emergency Action Plan and making all regular occupants familiar with the Emergency Action Procedures.

2. A written record of such drills shall be kept on the premises for a three-year period, and should be readily available for inspection by the Minneapolis Fire Department.

Deadline for Compliance Penalty

1. The Minneapolis Fire Department shall notify the owner whose buildings are subject to the provisions of this article. Within thirty days of the date of owner notification, the name of the Fire Safety Director shall be forwarded to the Fire Department. The Emergency Action Plan shall be completed within 180 days of the date of owner notification. The initial fire drill shall be conducted within 90 days of the completion of the Emergency Action Plan and subsequent drills shall be conducted at least every six months.
2. It shall be the responsibility of the Chief of the Minneapolis Fire Department or the Chief's designee to enforce compliance of this article.
3. The penalty for failure to comply with this section shall be a fine not to exceed $700 or imprisonment for 90 days, or both.

Safety Control Team

If possible, a Safety Control Team may be developed.

1. An outline of the team including names of members, positions held, and duties performed should be provided in written form and this information should be kept current.
2. The safety control team will be used in implementing the fire prevention, fire control, and rescue measures of the Emergency Action Plan.
3. Regular meetings and training sessions should be provided for the Safety Control Team.

It is recognized that not all buildings classified as high-rises will have the necessary personnel to allow for a fully developed safety-control team. Such occupancies may be restricted in terms of in-building firefighting tactics, but all other areas of fire safety planning, evacuation procedures, and safety control team activities will be addressed.

Loose-leaf Binder Titled "High-Rise Safety Program"

In order to provide for ready reference of a high-rise building by the building Fire Safety Officer and the Minneapolis Fire Department, a loose-leaf binder titled "High-Rise Safety Program" with the name and address of the buildings should contain the following:

1. Building floor plans
2. Types of fire protection equipment
3. Location of the fire protection equipment (such as: sprinkler riser, fire alarm control panel and annunciator, emergency contact numbers, monitoring company and phone number, fire pump, and emergency generators and location)

4. Record of necessary periodic testing
5. Name of the Fire Safety Director and any assistants
6. A record of all fire drills
7. A list of handicapped occupants and their locations
8. A copy of the Emergency Action Plan

This reference material should be kept at the Control Center. Duplicate copies should be filed with the Fire Prevention Bureau and the Fire Safety Director.

Section 2:

Emergency Procedures for High-Rise Buildings

Introduction

The entire evacuation of high-rise buildings in an emergency cannot be obtained in a short period of time. The number of people occupying a high-rise building is too great to allow everyone to leave at the same time without creating a dangerous situation. This could cause a panic and hamper firefighting and rescue operations. In fact, on most occasions of an emergency, it will not be necessary or feasible.

High-rise buildings on the most part, in the recent past, have been built with compartments to isolate possible rapid spread of fire. The interior and exterior bearing walls of a high-rise building are constructed to withstand the passage of heat, smoke, and flame for up to four hours. A fire occurring in one or two of these compartments should be contained for a specified time within those compartments. Thus, the occupants of a compartment in which a fire erupts can move horizontally or vertically to safer uninvolved compartments and wait there until the fire is extinguished or they receive word to activate the next stage in the evacuation plan. This allows a fire evacuation plan to be developed around a plan of limited evacuation where occupants are moved to a safe refuge area within a building, vertically or horizontally, staying there until the fire emergency is over.

While local or limited evacuation will be used in the majority of fire situations, total evacuation of a building may be necessary. Therefore, a plan of action for total evacuation is necessary. This involves the cooperation of the building's Safety Control Team and the Fire Department working together following a predetermined plan.

Also, emergencies other than fire may occur within the high-rise building. Two such possibilities include bomb and tornado emergencies. Recommended guidelines to follow, should these events occur, are also included within this program. If these guidelines are followed when such emergencies occur, occupants of high-rise buildings will be provided with a greater measure of safety.

General Procedures

Certain general procedures are recommended for personnel who may discover a fire and for those members of the Safety Control Team who are responsible for implementing the Emergency Action Plan when a fire emergency exits. The Safety Control Team should ensure that all persons working or living within the high-rise building are familiar with these recommended procedures. This information should be posted in key locations within the building as well as the telephone number to be used to report a fire and the routes to be used for evacuation.

Procedures

Rescue

Rescue anyone in immediate danger from the fire. This applies to those cases where persons are in immediate danger and must have assistance to remove themselves from the immediate danger. This can usually be accomplished by assisting the person away from the immediate fire area. In some incidents, additional help may need to be summoned to accomplish this task.

If this operation should require more than a few seconds to accomplish, then the alarm should be sounded immediately to ensure that assistance is on the way.

Confine the Fire

In many cases, a fire can sometimes be restricted to a certain area by closing doors and preventing it from reaching further fuel or receiving additional oxygen. This should be performed as a person leaves the area to sound the alarm.

Sound Alarm

The Fire Emergency Action Plan must make certain the alarm has been sounded. This will ensure that additional help has been summoned. If rescue and confining the fire require excessive time, then the alarm should be sounded before those tasks are performed.

1. The Emergency Action Plan must ensure that the Fire Department will be notified. This may be accomplished by calling 911, notifying the Building Control Center, or notifying the Building switchboard operator.

    a. The Emergency number for Fire, Police, and Medical is 911. This should be placed at all telephone locations.

    b. Give the exact location of the fire:
        - Building address
        - Floor
        - Area
        - Type of fire

c. A member of the Safety Control Team should be assigned to meet the Fire Department and direct them to the Control Center where they may be directed to the location of the fire.

2. Notify others within the building of the emergency, if this has not been previously accomplished. This may be accomplished by calling the Building Control Center switchboard operator or sounding the building fire alarm.

   a. The Emergency Action Plan should have a procedure to notify members of the Safety Control Team and other responsible persons of the emergency, its nature, location, and any assigned task.

   b. The Control Center or the switchboard operator should be assigned the task of calling 911 even if the person reporting the fire has indicated that it has been reported. Additional calls to 911 do not present any special problems, but will ensure that the call is made.

3. Notify other occupants and members of the Safety Control Team on the floor of the emergency, if this has not already been performed.

Evacuation

When a fire emergency occurs, it may be discovered during different stages. Therefore, the exact evacuation stage to use cannot be specified. If a fire is discovered by an occupant in his/her unit, the occupants should leave the unit, call the Fire Department, pull the fire alarm, and go into the stairway.

If further evacuation is needed, the occupant should receive instructions from the Fire Department or the Fire Safety Director.

Extinguish

If a fire is in its incipient stage, it might be feasible, if a Safety Control Team member is on the fire floor and feels it is safe, for him or her to extinguish the fire. If not, leave the area and be sure to close all doors as you leave.

Model Evacuation Plan

Due to extreme difficulties encountered in moving large numbers of people out of a high-rise building simultaneously, the Minneapolis Fire Department has devised an evacuation plan consisting of six stages. This plan may be used as a guide in designing a plan for most occupancies.

Stage 1 – No Evacuation (Unit Safety)

Should a fire occur in a building that is compartmentalized, the occupant of that unit should call the Fire Department and leave the unit, closing the doors as he or she leaves. Proceed to the nearest pull alarm and activate it.

Then move into the stairway to a lower floor. Occupants of the units on the fire floor should remain in their units. Seal openings around door to keep out smoke and heat.

If it becomes necessary to evacuate the fire floor, the Fire Department or the Safety Director will inform everyone of any further evacuation.

Stage 2 – Local Evacuation

Local evacuation is the horizontal movement of occupants in an endangered area to a safe area on the same floor.

Many times in high-rise buildings, when a fire is discovered, it will consist of a fluorescent light with a defective ballast, an overheated motor, a small fire in a wastebasket, or other minor situations. In these incidents, the horizontal movement of the occupants will be sufficient to remove them from the immediate area until the situation has been resolved.

Stage 3 – Limited Evacuation

Limited evacuation is the vertical movement of the occupants of three floors. This stage of evacuation should be implemented when smoke, fire, or other signs of combustion are noted. Be aware that odors of smoke may not be coming from your floor, but may be coming from a floor below or above. Occupants of the floor above the fire should move up one floor or down, if possible. If there is too much smoke in the stairway to allow you to go down and you are on the top floor, it might be feasible to move to the roof. Occupants on the fire floor, and the floor below the fire, move down three floors and re-enter the building. Stairways should be used in the process. Persons should not delay or return for personal belongings.

Elevators must not be used for evacuation by occupants of any floor unless so directed by members of the Fire Department. If first exit route is blocked, use alternate route. Floor Captains of all other floors are notified of the emergency by the Control Center. They will prevent persons in their area from using the elevators. They do not start evacuating until so directed.

When the Fire Department arrives on the scene to extinguish the fire, they will be given information about the situation and area involved at the Control Center. Members of the Safety Control Team will provide assistance as needed. If the fire is small and extinguished quickly by the Fire Department, there is no need to evacuate other floors.

Occupants of the building may return to their designated areas when directed to do so by the Fire Department or Safety Control Team. This decision will be made by the Chief Fire Department Officer in charge of the fire.

Stage 4 – Intermediate Evacuation

The officer of the Minneapolis Fire Department in charge of the fire may decide that an additional floor or floors may need to be evacuated to facilitate firefighting operations or to provide greater safety for occupants of the building. This may also be ordered by the ranking members of the Safety Control Team before the arrival of the Fire Department.

1. Regarding evacuation, if there is any deviation from the pre-planned route, the floor or floors that need to be evacuated will receive individual instructions from members of the Fire Department or the Safety Control Teams.

2. The Floor Captain of the floor or floors designated will direct the occupants to the stairways that have been assigned for this purpose and will proceed to the pre-determined locations.

3. Elevators shall not be used for evacuation by the occupants unless so directed by members of the Fire Department or Safety Control Team.

Stage 5 – General Evacuation

General evacuation is the downward evacuation of the entire building by the occupants. Designated routes will be determined by those in charge of the situation. This stage of evacuation is an advance plan of action when the fire is not easily extinguished or out of control.

The Fire Department will notify the Control Center when this situation exists and designate the required exit routes.

1. The Control Center will notify all floors above the fire to be evacuated downward.

    a. Evacuation should start from the top floor. Each floor should evacuate at set intervals until the building is completely evacuated.

    b. The Floor Captain of the floors above the fire will determine from the Control Center what stairways are designated for exit, if different from the pre-plan. These will be designated by the Chief Officer in charge of the fire to avoid hindrance to firefighting and rescue operations. The Floor Captains will direct the occupants in their assigned areas to these designated exits.

    c. Elevators shall not be used for evacuation by occupants of any floor above the fire floor unless so directed by the Fire Officer in command of the fire.

2. After the floors above the fire floor are evacuated, the Control Center will notify floors below the fire to begin evacuation.

    a. Floor Captains will direct occupants to designated stairways.

    b. Elevators shall not be used for evacuation by occupants unless so directed by members of the Fire Department.

3. The entire building will be evacuated except those needed for Fire Operations. This may include the Safety Control Team, maintenance personnel, or security personnel as designated by the Chief Officer in charge of the fire. If these persons are not assigned duties, they should stand near the Fire Department's first floor or outside the command post and be available to the Fire Department.

Stage 6 – Emergency Evacuation

1. If occupants are on floors above the fire floor but are not beyond the reach of the Fire Department's aerial ladders, they should hold these positions as long as possible for rescue operations by aerial ladders.

    a. They should seek shelter in rooms or areas that have outside windows.

    b. These areas should have fire rated doors that allow them to seal off the area from the fire for a certain period of time. Rugs, towels, rags, or other materials should be placed around the cracks at the bottom of doors or other openings that allow smoke and heat to enter.

    c. Windows may be opened if no smoke or heat is drawn into the room or area. Bright colored materials, white if available, should be displayed from the windows to attract the attention of fire personnel.

    d. If the area has telephones that are still functional, these should be used to call the Control Center or local Fire Department to describe your situation and location.

    e. As operations are conducted to rescue persons from these locations, obey all directions received from Fire Department personnel. **DO NOT PANIC**.

2. If occupants are trapped on floors above the reach of Fire Department aerial ladders, they should follow the same instructions pertaining to persons awaiting rescue from lower floors.

    There is no rescue available from the roof of a high-rise building should the roof be beyond the reach of Fire Department aerial ladders. Every effort should be made to stay in a refuge area or to move down the stairway, if possible.

In all of these evacuation procedures, every consideration should be given to assist the handicapped should there be any kind of evacuation from the building.

Fire Evacuation Plan for Hospitals, Nursing Homes, Rest Homes, Commercial B-Occupancies, and R-1 Residential Occupancies

This plan is intended as general guidelines for all buildings including high-rise buildings where the physical condition of the occupants prevents compliance with the Model Evacuation Plan.

This is usually due to non-ambulatory patients who would require assistance to evacuate, and patients whose attempts to evacuate would prove harmful to their health. In these instances, it would be better to leave the patients in their individual rooms unless fire conditions mandate their evacuation.

1. The Fire Evacuation Plan in use must be written. It should be reviewed frequently to ensure that each staff member is familiar with the plan, aware of their assigned responsibilities, and properly trained in its execution. This can only be

accomplished by conducting actual fire drills. These shall be conducted as often as is required by the code or ordinance.

2. It is extremely important in these occupancies that a fire be discovered in its beginning stages. It is recommended that these occupancies have some type of automatic fire detection or suppression system. It is also recommended that operating procedures require staff members to make appointed rounds. Therefore, if a fire is discovered it will be confined to a single room or small area. Procedures to follow in these cases should include.

    a. Rescue anyone in immediate danger from the fire. This can be accomplished by removing the patient or patients from the immediate vicinity of the fire or from the room involved. Additional help may be needed to accomplish this task. Sound the alarm first if this operation takes more than a few seconds.

    b. Confine the fire. After patients have been removed from immediate danger, the fire should be isolated by closing all interior doors exposed to the area involved in fire. This would include closing all other doors to patient rooms, but ensure that the alarm has been sounded before additional time is spent accomplishing this task.

    c. Sound the alarm to ensure that additional help has been summoned. If rescue and confining the fire require excessive time, then the alarm should be sounded before those tasks are performed.

        1) Plan must ensure that the Fire Department will be called. This may be accomplished by calling the Fire Department directly, notifying the Control Center, or notifying the switchboard operator. The 911 number for the Fire Department should be placed at all telephone locations. Designate the exact location of the fire. A staff member should meet the Fire Department and direct them to the exact location of the fire.

        2) Notify others of the emergency if this has not been accomplished during any of the procedures. This may be accomplished by calling the Control Center, switchboard operator, or sounding the building fire alarm.

        3) Notify other staff members on the floor of the emergency if this has not already been performed.

    d. Extinguish the fire. Use good judgment, however. If you try to extinguish the fire, do not endanger yourself. It might be better to close off the area.

3. When the fire situation indicates that a larger area needs to be evacuated, relocation within the building is preferred. All available staff should be sent to this area to assist with the evacuation.

    a. Horizontal movement into a separate area of refuge, if possible, or away from the danger toward a safe exit.

    b. Vertical movement. If necessary, always move patients downward and reserve elevators for non-ambulatory patients.

c. Isolate the fire as much as possible by closing all interior doors to the area involved in fire.

4. Should the fire situation become serious, general evacuation of the building should begin.

   a. Procedures to recall all off duty staff members should be implemented.

   b. Shelter should be provided for patients in nearby hospitals or locations equipped to handle the patients.

   c. The guidelines outlined in Stage 3 or 4 of the Model Fire Evacuation Plan will be followed.

Bomb Emergency

Each high-rise building should have a procedure to follow in the event of a bomb threat or when an actual bomb is found. The following material should only be distributed to key members of the Safety Control team and the telephone switchboard operators. This information should be kept confidential because it might alert potential terrorists of methods to use to escape detection.

As a preface to the recommended actions that follow, it is important to consider the most serious of all decisions to be made by the person in charge of a building in the event of a bomb threat – evacuation or non-evacuation of the building involved. This can result in loss of time and interruption of normal routine, and can be a costly decision, if the threat is a hoax. The alternative is for management to make the decision. In the past, the vast majority of bomb threats were hoaxes. However, the current trend is that more of the threats are materializing than in the past. Thus, management's first consideration must be toward the safety of the people. It is practically impossible upon receipt of a bomb threat to determine immediately whether it is a hoax or a reality.

In the March 7, 1971 issue of *Life Magazine*, an "admitted bomber" is said to have made this statement: "In spite of the elaborate security measures the establishment has taken, their buildings will continue to be vulnerable until they change the nature of their activities."

The terrorists have developed their plan of attack and the following procedures are recommended for planning in the event of a bomb threat call.

On receiving a bomb threat, the decision is yours – evacuation or non-evacuation.

1. Call the Police Department – 911.

2. Control and inspect incoming persons and packages.

3. Have members of your staff, in conjunction with Police, search the building.

4. Alert all security and maintenance personnel.

5. Person receiving call should:

    a. Keep caller on the line. Do not hang up; the call may be traced.

    b. Record the message.

    c. Ask Who, What, When, Where, Why, and How.

    d. Listen for accents, speech impediments, background noise and note the race, sex, and age of the caller.

    e. Call the Police Department – 911.

6. If a suspicious object is found, clear the area to a radius of 500 feet and wait for the Police Bomb Squad.

These are recommendations. In the final analysis, the decision is yours.

Operator's Bomb Threat Call Checklist

Obtain as much detail as possible about the bomb and its location. Legitimate callers usually wish to avoid injury or death. Therefore, request data by expressing a desire to save lives.

1. Ask:

    a. What is the exact location of the bomb?
    b. What time is it set to detonate?
    c. What does it look like?
    d. What is the explosive?
    e. Why was it placed?

2. Record:

    a. Date and time of call
    b. Exact language used
    c. Male or female, adult or child, approximate age, race
    d. Speech:
        1) Slow
        2) Rapid
        3) Normal
        4) Excited
        5) Loud
        6) Disguised
        7) Broken
        8) Sincere
        9) Accent
    e. Background noise
    f. Name of operator receiving call

3. Notify:

    a. Report the call to the police.
    b. Notify your supervisor.
    c. Follow instructions.
    d. Do not discuss the call with other personnel.

Tornado or Violent Windstorm Emergency

A tornado is defined as a violently whirling column of air extending downward from a cumulonimbus cloud. It is usually seen as a rapidly rotating slender funnel-shaped cloud that usually destroys everything along its narrow path. National researchers have found from observations that 90% of tornadoes move from a southwesterly direction. This is important when planning refuge areas and posting tornado lookouts.

Two defined conditions are recognized by the National Weather Service:

1. Tornado Watch: Means that weather conditions in the area are such that a tornado could develop. This information is put out by the National Weather Service as weather bulletins on local news media.

2. Tornado Warning: Means that a tornado has actually been spotted in the Hennepin County area, and there may be danger of life and property if protection measures are not taken by people who are in its path. Hennepin County Civil Defense Sirens will sound an alert when the National Weather Service gives a Tornado Warning.

A Tornado Emergency Plan should include:

1. Posting lookouts to observe the areas of south and west from the building.

    a. They should be provided with a means of communication that will enable them to sound a warning should a tornado be sighted.

    b. Should the lookout sight a tornado, an alert should be sounded within the building and all personnel seek shelter.

2. Precautions that may prevent damage:

    a. Put away valuable papers.

    b. Close drapes on outside windows.

3. Seeking shelter if a tornado is sighted.

    a. Move to areas toward the interior of the building or areas away from glass windows.

    b. Corridors are usually good havens, but avoid if at all possible corridors facing west or south. They tend to become wind tunnels. Corridors facing north are the best and those facing east are next best.

    c. Basements are safest.

4. In case of violent wind storms, move to a safe area until the wind has subsided.

5. Safety Control Team duties

    a. Serve as lookouts.

    b. Sound alerts.

    c. Maintain order throughout the alert.

    d. Notify the Fire Department if a wind storm or tornado causes injuries or property damage.

    e. Provide immediate first aid.

Medical Emergency

Use this procedure in case of a medical emergency. This could be for a tenant, occupant, or visitor.

1. Have a person trained in first aid check the patient to see if outside medical assistance is needed.

2. If necessary, call 911.

3. Give all necessary information:

    a. Address
    b. Floor
    c. Room
    d. Condition of patient
    e. Number of patients

4. Have somebody meet the Fire Department and/or ambulance crew at ground level, and also on the floor of the emergency.

5. Call the Fire Safety Director and inform him or her of the medical emergency. Provide all the necessary information.

Elevator Emergency

Use this procedure in case someone becomes trapped in an elevator.

1. Explain the procedure to use – push or pull alarm button or use the phone provided.
2. State floor number if known and car number (should be printed on inside of phone panel door).
3. Remain calm. Sit down if necessary.
4. Answer phone if it rings. Turn off alarm bell if you hear someone talking to you.
5. Do not attempt to force doors open.
6. If a medical emergency occurs, call 911.

Mechanical Emergency

For day, night and weekend emergency mechanical problems, such as lights out, water leaking, toilet over flowing, heating, etc., notify your supervisor or call the building owner (telephone number: _____).

For non-emergency mechanical problems, please contact your supervisor.

Security

In the event of threatening or suspicious acting visitors or intruders in an area either in an area open or not open to the public:

1. If the individual threatens violence or you suspect that he or she may become violent: _____ .
2. If the individual represents only a nuisance and poses no threat to person or property: _____ .
3. If the individual is clearly harmless and has inadvertently wandered into a non-public space: _____ .

Fire Emergency

NOTE:

1. Activate a fire alarm pull station (see attached building layout for location), then call 911 and the building emergency number (_____). Give the following information:
   a. Building name
   b. Floor number
   c. Details of fire emergency
2. When you hear an alarm, evacuate immediately, using the nearest interior or exterior stairwell.
3. Floor monitors and an alternate will be designated. Notify them if possible.
4. Fire exit routes are marked and also appear on the floor layout map.

DO's

1. Leave immediate fire area and close doors behind you.
2. Use stairwells to evacuate.
3. If caught in heavy smoke, take short breaths through your nose, stay near the floor and move to the exit by crawling.

DON'Ts

1. DO NOT attempt to fight the fire.
2. DO NOT use the elevators.

What's Next

1. Assemble at your designated assembly point: _____
2. Fire Department dispatched by 911 center.
3. Firefighters arrive to handle emergency.

Floor Monitor Responsibilities

Periodic Inspections

1. Inspect assigned area to eliminate fire hazards.
2. Keep aisles and exits cleared.

Information

1. Familiarize employees with proper evacuation routes and procedures.
2. Maintain a current list of floor monitor, alternates and handicapped (include breathing impaired).

Evacuation

1. Notify floor employees in assigned area to form a line in the aisle leading to safe exit stairwell and direct an orderly evacuation to designated safe area in:

   _____

2. Check restrooms, conference rooms and remote areas for employees who may not have heard evacuation alarm.
3. Keep employees assembled in designated safe area in _____ until all clear is received.
4. If there are persons unaccounted for, the floor monitor will immediately notify the Fire Command Center.

Handicapped Evacuations

1. Evacuate handicapped to a safe area near the stairwell landings.
2. Designate two co-workers to assist.
3. First co-worker to stay with handicapped person, second co-worker to meet emergency units at _____ to inform them of handicapped person and location.

Section 3:

High-Rise Fire Safety Control Team

Introduction

The potential for serious losses, both human and economic, resulting from fire in high-rise buildings has been demonstrated amply here and abroad. Actual fire experiences have focused attention on the high-rise problem and aroused public concern.

This concern is justified due to the capacity of high-rise buildings to accommodate large numbers of occupants, and the impracticability of mass evacuation to the street or ground level. Fires in high-rise structures can result in staggering death and injury tolls for both occupants and firefighters. They can also result in heavy physical damage to the building, business interruptions, lost tenancies, expensive repairs, years of legal action, and monetary judgments against the owner of the building. Rarely are all of these losses covered by insurance.

Of course, many fires that have occurred in high-rise buildings have been controlled and extinguished without spread beyond the point of origin and with no loss of life and minimum property damaged. The difference between those minimum loss fires and fire resulting in more serious losses has been good building design, good fire protection, good maintenance, and a good fire safety program.

Whether you are a building owner, operator, or manager, you have a prime responsibility for minimizing hazards to life and property from fires in your building. Certainly no one is in a better position to plan for the safety of the people in the building, to observe infractions of sound safety practices, and to encourage, even insist on, compliance with fire prevention codes.

To facilitate the discharge of your responsibilities, the Minneapolis Fire Department will work with the Fire Safety Director in the establishment, implementation, and maintenance of the Emergency Action Plan.

Objectives

Within the Emergency Action Plan, a Safety Control Team may be organized from occupants or tenants in the high-rise buildings. It should consist of responsible persons, with individual assigned tasks and special training. Each high-rise should develop a Fire Safety program, including an evacuation plan depending upon the particular occupancy and the size of the building. The plan should be coordinated with the High-Rise Fire Safety Coordinator of the Minneapolis Fire Department and follow the guidelines presented by the Minneapolis Fire Department as closely as possible. Training for members of the Safety Control Team and education of other occupants of the building should be conducted on a regular basis.

The objectives of the Safety Control Team are:

1. Prevent fires from occurring by developing a good fire prevention program.
2. Develop a fire, medical, tornado, and bomb threat emergency plan.
3. Execute this emergency plan should an emergency occur.

Management Responsibilities

It is very important that management (including owners, authorized agents or managers) be involved with the Safety Control Team. Management is responsible for minimizing hazards to life and property from fire and any other dangers or hazards that might be encountered.

Management's role involves:

1. Taking an active part in leading their personnel in interest in a fire safety program.
2. Providing incentives and inspiration to belong to the Safety Control Team.
3. The designated Fire Safety Director of the Safety Control Team should report to a member of higher management. The Fire Safety Director supports the control team to management to gain acceptance of the fire safety program within the building.
4. Providing time for the Safety Control Team to conduct training sessions and drills.
5. Providing resources for the Control Team.
    a. Personnel. Persons may be assigned to Safety Control Team making the best use of their assigned job duties within the building. They should be responsible persons who are interested in providing a safe environment within their building.

b. Equipment. Certain equipment may be provided by the building management for the Safety Control Team to assist them in the performance of their duties. This would include:

   1) Means of identification. This may consist of arm bands or hats with the words “Safety Control Team” or other terms denoting position.

   2) Flashlights to be used during inspections or during an emergency, if lights should fail.

   3) Communication devices, walkie-talkies or other means of communication between the Control Center and individual floors or areas would provide for greater efficiency of an evacuation plan.

Safety Control Team Organizations

The size and organizational structure of the Safety Control Team will depend upon the size and occupancy of the particular high-rise building. The personnel of the Safety Control Team will need to be chosen from those persons who work or live within the building. Who is used and what roles they perform will be determined by the type of occupancy. Persons selected should be dedicated, responsible people who will strive to learn their roles and perform their duties as effectively as possible.

Chain of Command

It is important that all of these positions be filled and that alternates be provided to ensure that personnel are available should an emergency occur.

1. Fire Safety Director
2. Assistant Fire Safety Director
3. Safety Engineer
4. Floor Captain for each floor
5. Floor Wardens for each floor

Safety Committee

A Safety Committee should be formed within the building consisting of the following:

1. Fire Safety Director
2. Assistant Fire Safety Director
3. Safety Engineer
4. Floor Captain and Floor Wardens or their alternates

The duties of the Committee are to develop solutions to program problems, devise and schedule training in fire prevention, use of extinguishers, physical movement of disabled persons and evacuation. The Minneapolis Fire Department High-Rise Safety Coordinator can be contacted for any assistance if needed. The Committee should meet on a regular basis.

Individual Responsibilities of the Safety Control Team

Fire Safety Director

The key to the successful operation of the Safety Control Team is the devotion of the Fire Safety Director. This position should be assigned to a responsible person who will be able to communicate directly with the building owner, authorized agents or manager, and those persons in charge of small concerns in the building. In some cases, the building manager, assistant manager, or authorized agents may assume this role. It is important that this position is able to communicate the needs of the Safety Control Team and have the power or delegated authority to accomplish the duties of the Control Team.

Responsibilities of the Fire Safety Director include:

1. Serve as liaison between that individual high-rise building owner and the Minneapolis Fire Department through the High-Rise Emergency Action Coordinator.

2. Organize the Safety Control Team and to select other members throughout the building to assist the Director in the performance of the Director's duties.

3. Be responsible for the dissemination of information to tenants, to keep them informed of audible alarms, telephone communications and public address announcements that will be used to signal that an emergency condition exists and the procedure to be implemented by tenants during the emergency condition.

4. Establish an Emergency Control Center within the building in a key location. Fire consideration should be given to a location on the first floor where the Fire Department will be arriving so that the vital information can be given to the Fire Officer in charge of the emergency. A responsible member of the Safety Control Team should be assigned to the Emergency Control Center to facilitate this duty during an emergency situation. This would normally be an assignment of the Fire Safety Director.

5. Complete a manual of vital information to be kept at the Control Center containing the following information:

    a. A floor plan for each floor showing all pertinent features.

    b. The location of all controls of the various building systems.

    c. A list of the names, telephone numbers, and responsibilities of the Safety Control Team and other important personnel.

    d. Information on all special hazards in the building, including methods of handling emergencies involving those hazards.

    e. The specific evacuation plan of the building.

6. Ensure that all members of the Safety Control Team are trained in their duties of evacuation, rescue, extinguishing incipient fires, inspections, and that this training is given by members of the Safety Control Team to other occupants of the building.

7. Strive to establish procedures for evacuation of this building to conform as nearly as possible to the Model Evacuation Plan developed by the Fire Department.

8. The Fire Safety Director or the assistant should be in complete command during all fire drills, actual fire emergencies, and other types of emergency situations, until the arrival of the Fire Department or other official agencies.

9. The authority of the Fire Safety Director will be turned over to the first arriving Officer of the Fire Department. The Fire Safety Director shall notify the Officer of what actions have been taken and remain at the command post to serve as an adviser to the Fire Officer in charge.

Assistant Fire Safety Director

The Assistant Fire Safety Director needs to be familiar with the duties and responsibilities of the Fire Safety Director and assist the Fire Safety Director in the performance of these duties. In the absence of the Fire Safety Director, the Assistant Fire Safety Director shall assume these duties.

Safety Engineer

1. The Safety Engineer will make regular checks to see that an adequate water supply is maintained in the sprinkler system, that all valves remain open and that fire pumps, where applicable, are tested regularly. If any of these fire protection devices are shut down for any reason, both the Fire Department and the Fire Safety Director are to be notified immediately.

2. The Safety Engineer will conduct periodic maintenance and tests on the fire alarm system as specified by the manufacturer and the National Fire Codes.

3. If emergency power is provided, the Safety Engineer will check the generator once a week to ensure that all circuits and devices are in working order.

4. In the event of an emergency, the Safety Engineer will stand by (at a location determined by the Fire Safety Director) to shut off gas, electricity, air conditioning, blower systems, etc. when specifically ordered by the Fire Safety Director or the Fire Department to do so.

5. The Safety Engineer will submit monthly reports to the Fire Safety Director stating that all required tests on emergency equipment have been accomplished. This report will also contain the results of the tests and recommendations for future improvements.

6. With the approval of the Fire Safety Director, the Safety Engineer will select and train an alternate for the position of Safety Engineer.

Floor Captain Duties

1. Ensure that an alarm will be sounded should an emergency exist on his or her assigned floor.
2. Maintain contact with the Control Center should an emergency exist in other parts of the building.
3. Have charge of all matters relating to the Fire Safety Program and evacuation plans for his or her assigned floor.
    a. Order evacuation of his or her floor should conditions warrant.
    b. Carry out the evacuation of his or her floor as directed by the Control Center or other responsible persons.
4. Ensure that frequent inspections of offices and public areas are conducted on his or her floor to eliminate fire hazards, ensure that fire protection equipment is in its designated place and works properly, and see that aisles are properly maintained and exits are not blocked.
5. Ensure that each person assigned to his or her floor knows the evacuation plan, including alternate routes.
6. Devise a method of accounting for all persons on his or her floor in the event of an evacuation.
7. Ensure that signs are properly posted and members of his or her assigned floor are trained concerning:
    a. Evacuation routes and procedure
    b. Exits and alternate exits for different floor areas
    c. Use of elevators in an emergency
    d. Fire survival techniques
    e. Fire prevention practices
8. With the approval of the Fire Safety Director, will select Floor Wardens to assist him or her in other duties, naming one or more of the floor wardens as his or her alternate.

Floor Wardens

It is important that enough Floor Wardens be assigned to each floor to ensure that an adequate number will be available to perform the assigned duties should an emergency occur. (The number of floor wardens will be determined by the type and size of the building.) These members should be chosen from interested persons who perform their normal job duties on the floor where they are designated Floor Wardens. The Floor Warden duties include:

1. Assuming the role of the Floor Captain should he or she not be available and an emergency occurs.

2. Sounding an alarm by predetermined means should an emergency exist.
3. Directing occupants in his or her assigned area to predetermined exits or areas in the event of an evacuation.
4. Monitoring stairways during evacuation to prevent panic and avoid blocking of exits.
5. Checking secluded areas for stragglers.
6. Shutting off electrical equipment and closing the door as he or she leaves.
7. Preassigning coworkers to assist invalids.
8. Extinguishing incipient fires with building fire protection equipment, such as fire extinguishers.
9. Becoming thoroughly familiar with his or her area so that a bomb search can be made with dispatch.
10. Assisting the Floor Captain in fire safety training for other floor occupants.
11. Conducting inspections, as directed, of offices and public areas to eliminate fire hazards, ensuring that fire protection equipment is in its designated place and works properly, and that aisles are properly maintained and exits are not blocked.

Safety Control Team Duties

Inspections

The prevention of fires is the best defense against fire loss. This can be accomplished by an internal fire prevention and education program. The Safety Control Team's role in the defense against fire becomes that of inspecting for common fire hazards, defects of fire protection systems, and educating the occupants of the building in safe fire practices. These duties involve inspecting the building on a regular basis and informing personnel of hazards that are encountered.

1. Prevent accumulations of rubbish. Have trash containers emptied each day, or more often, should the need arise.
2. Enforce no smoking in restricted areas. Inform persons of reasons for not smoking. Smoking areas should be provided with property type ashtrays.
3. Ensure that aisles provide access for firefighters and evacuating and are kept clear of equipment or temporary storage of any kind.
4. Ensure that flammable liquids are stored and used according to Uniform Fire Codes.
    a. Use in small quantities.
    b. Keep liquid in approved safety cans.
    c. No smoking.

d. Ventilate area.
e. Clean up spills.

5. Ensure that electrical appliances, machinery, and equipment in operation are not left unattended.

    a. Keep portable heater and other heat producing devices away from combustibles.
    b. Remove damaged electrical equipment from service.
    c. Don't allow makeshift repairs.
    d. Look for electrical equipment that isn't working properly, or has an odd odor. Strange odors from appliances or lights can be the first sign of fire.
    e. Ensure that appliances are turned off at the end of the day.
    f. Don't overload cords or circuits.
    g. Prevent the overuse of extension cords.
    h. Check extension cords that are in use for breaks in insulation.

Sprinklers

1. Ensure that proper valves are open. Should valves need to be closed for repairs, notify the Fire Department. Also notify the Fire Department when the system is back in service.

2. Have extra sprinkler heads on premises at all times for replacement purposes.

3. Sprinkler heads should remain free and clear, at least 18 inches above stored contents to reduce possible obstruction to the distribution of water.

4. Sprinklers should not be allowed to accumulate dust, lint, or dirt.

5. Sprinkler heads should be protected while painting in the immediate area by covering them with a small paper bag and removing the bag immediately after painting is completed.

Standpipes

The Federal Occupational Safety and Health Administration regulations require that Class II or Class III standpipe systems equipped with unlined linen fire hose cannot be greater in length than 75 feet. Lined single jacketed fire hose designed for use in these hose racks may be 100 feet in length.

1. Ensure that hose is not missing or defective where required.

2. Ensure that nozzle is not missing or damaged.

3. Ensure that caps or hose gaskets are not missing.

4. Ensure that valves are not leaking.

5. Ensure that standpipe cabinets are conspicuous and not obstructed.

6. Inspect siamese intake connections located on outside of building.

Extinguishers

1. Ensure that extinguishers are conspicuous and not obstructed.
2. Ensure that the proper extinguisher is available for the hazard involved.
3. Is the extinguisher located too close to the hazard which is to be protected, so that it could not be reached in case of fire?
4. Are connections between the hose and the shell and nozzle secure?
5. Is the hanger fastened solidly so that the extinguisher is well supported?
6. Is the extinguisher clean and maintained?
7. Is the shell of the extinguisher corroded, damaged, or dented in such a way as to suggest possible weakness?
8. Is the discharge orifice clean and unobstructed?
9. All fire extinguishers shall be installed, inspected, maintained, and tested annually according to the code requirements. Ensure that a tag indicating compliance and showing the company name, date of service, and license number of the service person is affixed to the unit. Units with pressure gauges require service every two years.

Alarms

1. Is the alarm tone used for evacuation and fire alarm distinctive in pitch and quality from all other sounding devices used in the building?
2. Are alarm devices distributed so as to be effectively heard in every room of the building above all other sounds?
3. Is the system tested on a regular basis?

Firefighting and Evacuation

Should a fire occur, the Safety Control Team must be organized, have a fire emergency action plan, and be trained in the use of fire extinguishers and evacuation procedures to ensure that fire losses, life, and property are kept to a minimum. This involves:

1. Procedure for sounding an alarm.
2. Training in extinguisher user, knowledge of types of fires and danger involved.
3. Development of an evacuation plan based upon the individual aspects of the building involved.
4. Training in the implementations of the evacuation plan should a fire occur.
5. Providing assistance to the Fire Department upon their arrival.

NOTE: The Fire Department High-Rise Safety Coordinator will be available to serve as an advisor regarding evacuation plans on the overall Emergency Action Plan. The Model Evacuation Plan should be followed as closely as possible so that a uniform method is practiced within the City of Minneapolis.

Types of Occupancies

Commercial Buildings

These involve offices or small businesses. The majority of the occupants are within the building only during working hours. There may be large groups of persons within the building, as customers or visitors, that do not possess knowledge of exit routes. Commercial buildings are further subdivided into:

1. Single Occupancy. With this type of commercial building, the entire building or major portion is occupied by the same business. It is much easier to form a chain of command within the Safety Control Team and involve members of the business in the Control Team. Upper management may assign key personnel to the Control Team as part of their routine duties and ensure that members will be available when needed.

2. Multiple Occupancy. This type of building involves several different businesses within the building. It will be difficult to depend upon persons to be available when needed as personnel may be out of the building conducting their company business. The Safety Control Team, in these types of buildings, will probably have to depend upon maintenance personnel that will be within the building during the majority of the business hours. A survey of the different businesses on each floor will reveal those persons who will probably be within the building during business hours. It will be important to involve these persons in the Control Team.

Residential Buildings

These involve buildings where occupants of the building may be within the building on a 24-hour basis and would be sleeping during the nighttime. They include:

1. Apartments, including buildings where the occupants maintain a permanent residence. This would also include senior citizen buildings. During the day hours, persons may be out of the building at their place of employment or other involvements, but these buildings may present a serious life hazard during the nighttime. The core of the Safety Control Team will probably be maintenance personnel on duty within the building. Involvement of the residents will also be necessary. A survey of available persons will be needed.

2. Transient buildings include hotels and motels where large groups of persons are within the building during the nighttime that do not possess knowledge of exit routes within the building. The Safety Control Team will consist only of persons employed by the hotel or motel. Panic of transients is a key consideration.

Hospital Buildings

These buildings possess the special problems of large groups of occupants that do not have knowledge of exit routes and others that may be confined and not be able to move themselves to areas of safety. These buildings will also have trained persons available on all floors at all hours. These persons will be key members of the Control Team.

Preparing for the Emergency

Implementing the evacuation plan requires that certain general features of the building be predetermined and integrated into the plan.

Alarm Systems

The first and most important procedure to follow in an emergency situation is to notify the Fire Department and others of the danger. Should persons discover a fire and attempt to handle the situation without calling for help, the fire may gain considerable headway and be out of control when help is called. Each building must have some method of sounding an alarm. The types of alarm systems will vary in different buildings. They may range from simple horns or visual alarms and the use of telephones to complex voice communication systems.

No matter what system is implemented within the building, it should be capable of accomplishing the following:

1. Notifying the Fire Department. The Fire Department can have assistance on the way while other procedures are being implemented. Do not assume that all alarm systems notify the Fire Department. Some types of alarm systems only sound at the location where the alarm was pulled. Others transmit an alarm to a command center or manned central station that transmits the alarm to the Fire Department. Ensure that the evacuation plan includes charging responsible persons with notifying the Fire Department. Information should include:

    a. What the emergency is
    b. Location of the emergency: address, street, floor

2. Notifying those in immediate danger. This involves notifying those on the floor where the fire or emergency has occurred. Local alarms, bells, whistles, horns, public address messages, etc. may be used. The alarm signal must be distinctive so that it cannot be confused with other signals produced in the same area. Members of the Safety Control Team and other occupants of the building must know what the signal means and what is expected of them.

3. Notifying the Building Control Center. The Control Center should be informed as soon as possible as to which floor is involved. They are charged with the responsibility to notify all floors of the danger and what floor should implement evacuation. The Fire Safety Director should report this location during an emergency.

Exit (Stairways and Passageways)

Exits play a very important role in any evacuation plan. Psychological factors must be considered when exits are evaluated in the evacuation plan. Persons will probably not behave logically under fire conditions. The possibility of fear and the resulting panic may become more hazardous than the actual fire danger. When people have confidence in a building and its exits, there is less danger of panic even though the actual danger may be present. When the dangers of a fire are present, persons will probably try to leave the area by the same route that they entered the building, instead of seeking an alternate route. In most cases, this will involve the use of elevators. Elevators as a means of exit during a fire should be avoided, unless members of the Fire Department or the Safety Control Team have indicated they are safe to use. Therefore, all exits should be conspicuously marked, evacuation plans posted, and occupants trained in the use of proper exits.

1. All exits should be properly marked.
2. All stairways and passageways that do not provide a safe path for evacuation should be marked that they are <u>not</u> exits.
3. All doors leading to stairways should be <u>unlocked</u> to permit persons to exit from the stairway to safe locations on other floors.
4. All doors leading from stairways should be marked with the floor number.
5. All stairways considered as exits should be marked in some manner that will indicate the specific location of the stairway. This will allow persons in charge of evacuation to indicate safe exits to persons in danger. A suggested method of indicated specific exits would be: “N” for north stairways, “S” for south stairways, “E” for east stairways, and “W” for west stairways. Additional stairways could be indicated by NE, SE, NW, etc. This information should be indicated within the stairway and on fire doors leading to the stairway. This information should also be indicated on the posted evacuation plan and be kept at the Control Center.
6. All exit stairways and passageways shall be kept clear at all times.
7. Floor wardens should be assigned duties as stairway monitors to prevent unsafe actions of persons during the evacuation.
8. Alternate routes of exit should be planned for those instances when the original exit is blocked for some reason.

Elevators

While the elevator is the most commonly used method of entrance or exit from high-rise buildings during normal everyday use does not mean that it remains a safe method during a fire emergency. In fact, the use of elevator during a fire emergency presents some special hazards to the occupants. These have accounted for fire fatalities in some high-rise building fires. Therefore, **<u>elevators should not be used by occupants as a means of evacuation unless so directed by the Fire</u>**

Department or the building's Safety Control Team. Elevators in high-rise buildings should be so marked as to this information. The following considerations are recommended for elevators:

1. That elevators be of the emergency service type.
2. That elevators be posted with signs that they are not to be used by occupants during a fire emergency unless authorized by the Fire Department or Safety Control Team.
3. That any keys needed for elevator emergencies be provided in a designated location available to the Fire Department. Such location should be in the lobby at the Control Center.
4. That provisions be made by the Safety Control Team for elevators to be brought to the main floor when a fire alarm is sounded, pending the arrival of the Fire Department.
5. Elevators should be equipped with a method to provide two-way communications and emergency lighting.
6. That the telephone number of a qualified elevator service person be listed and kept at the Control Center. If a serious emergency is in progress, a call should be made to have the service person dispatched immediately.
7. All elevator shafts should be designated by number. This number should be placed on each shaftway door on all floors. This information should be kept at the Control Center.
8. That all master switches for elevator control be numbered to correspond with the designated shaftway numbers. Locations of the control room should be included in the building diagram kept at the Control Center.

Control Center

Each high-rise building should have a Control Center to serve as a focal point during an emergency. This should be on the first floor, if practical. The Control Center provides several essential functions that are necessary for a Fire Safety Program. It serves as a command post for the Safety Control Team and the Fire Department. It provides a communication center during an emergency. It provides a data center for all pertinent information that may be needed to combat the emergency.

To accomplish this, the following considerations are recommended for Control Centers:

1. It should be provided a method of two-way communications with all floors and elevators within the building and a method to communicate out of the building.
2. If the building has an annunciator to show location of alarms or other key information, this should be located at the Control Center.

3. The Fire Safety Director or alternate should take a command position at the Control Center during an emergency.

4. A check-off list for each floor of the building should be kept at the Control Center. This will be used to record the reports of each Floor Warden when accounting for personnel.

5. Keys to all locked doors should be kept at the Control Center. This includes:

    a. Elevator keys
    b. Tool to open elevator door
    c. Keys to any locked doors to utility areas or stairways
    d. Keys for opening windows, if available

6. Important telephone numbers should be kept on file at the Control Center. This includes:

    a. Fire Department emergency number
    b. Police emergency number
    c. All members of the Safety Control Team
    d. Qualified elevator service persons
    e. Key management personnel

7. Special information on the location of any hazardous materials or processes conducted within the building.

8. A check-off list for the Fire Safety Director. This will include progress reports of the emergency and other key information needed by the Fire Department upon their arrival. It should include:

    a. Location of the fire or other emergency (floor and area)

    b. Seriousness

        - unknown
        - smoke
        - minor fire
        - serious fire
        - any personnel reported trapped

    c. Action to be taken

        - Fire being fought by Safety Control Team
        - Evacuation stage and routes

    d. Report of conditions on floors above the fire

        - Evacuation in progress
        - Have been notified to hold position

    e. Identification of elevators serving alarm floor

f. Fire protection systems operation, to include sprinklers or other extinguishing systems

g. Air conditioning systems have been shut off or can be used for ventilation of fire area without danger to other areas

h. Number of occupants normally on floor at this time

- Alarm floor
- Floors above or below

9. A manual containing floor plans of all floors within the building should be kept at the Control Center. This should include:

a. A layout of hallways and offices

b. Location of stairways and the distances from elevator banks or other key areas

c. Elevator shafts

d. Standpipe stations and the hose size and length available

e. Location of any two-way communcation posts

f. Locations of utility valve shut-offs

g. Location of floor drains

h. Location of fire protection equipment valves and pumps

i. Location of air-conditioning system shut-offs and if system could be used for ventilation

j. The highest floor that can be reached by 100 foot aerial ladders

k. A complete list of all handicapped persons and their location

Section 4:

Forms and Signs

Introduction

This section contains the following forms and information that can be used in setting up an emergency action plan.

- Emergency Telephone List: Floor Wardens/Alternates
- Fire Prevention Inspection Report: Housekeeping/Maintenance and Fire/Life Protection Systems
- Fire Drill Report
- Company Profile
- Tenant Training Record
- List of the Physically Impaired
- Emergency Evacuation Procedures for Disabled Individuals
- Emergency Exit Plan (Sample)
- In Case of Fire, Do Not Use Elevators (Sign)
- Stairway Identification

Emergency Telephone List

Floor Wardens/Alternates (* CPR or EMT trained)

Keep this list current (update at least quarterly). Advise the building office of all changes.

	Primary Floor Warden			Alternate Floor Warden		
Floor	**Name**	**Room**	**Phone**	**Name**	**Room**	**Phone**

Fire Prevention Inspection Report

Housekeeping/Maintenance

OK	NOT		
❒	❒	1.	All no smoking regulations being observed.
❒	❒	2.	Proper ashtrays, receptacles being used.
❒	❒	3.	Combustible waste placed in proper/approved containers.
❒	❒	4.	Trash/rubbish removal made on a regular basis.
❒	❒	5.	Flammable liquids safely stored in approved containers.
❒	❒	6.	"No Smoking" signs posted in above areas.
❒	❒	7.	Proper/approved ventilation provided in above areas.
❒	❒	8.	All electrical plugs, switches and cords legal and in good repair. No extensive use of cords from outlet (octopus).
❒	❒	9.	Adequate clearance maintained at all sub-panels (3 feet).
❒	❒	10.	Electrical and devices turned off when not in use.

Fire/Life Protection Systems

OK	NOT		
❒	❒	11.	Adequate lighting in corridors, exits and stairwells.
❒	❒	12.	Exit signs illuminated as required.
❒	❒	13.	Evacuation routes adequately posted.
❒	❒	14.	Evacuation signs maintained – none defaced or missing.
❒	❒	15.	Fire doors in operable condition – none wedged or blocked open, especially at stairwells.
❒	❒	16.	Stairwells free of obstacles, storage, refuse, etc.
❒	❒	17.	Corridors and exits maintained unobstructed.
❒	❒	18.	Fire alarm systems tested regularly.
❒	❒	19.	Fire sprinkler inlets and shutoff valves visible/accessible.
❒	❒	20.	Fire sprinkler heads clean and unobstructed.
❒	❒	21.	Adequate clearance (3 feet) for all fire extinguishers/hoses.
❒	❒	22.	Fire equipment in proper/legal locations, in undamaged condition and properly/regularly tested (see tag).
❒	❒	23.	Floor Warden System personnel updated, fully staffed.
❒	❒	24.	Tenants/new employees instructed on emergency plans.
❒	❒	25.	Other observations (use another sheet).

Report submitted by: _____ Date: _____ Suite: _____

Fire Drill Report

This report is to be completed immediately after each fire drill and a copy sent to the Fire Safety Director. Explain all "No" answers along with any comments, problems encountered, and recommendations on an additional sheet.

Building _____ Floor _____

Date _____ Time of drill _____

Floor evacuated at _____ Elapsed time (minutes) _____

Time drill completed _____

Check Yes or No in the spaces provided for those items that are applicable to your floor or unit.

Yes	No		
		Communications	
❒	❒	1.	Was the fire alarm clearly heard in all areas?
❒	❒	2.	Was the public address system clearly heard in all areas?
❒	❒	3.	Was the Fire Department notified? Time: _____ .
❒	❒	4.	Was Security notified?
		Evacuation Team Personnel	
❒	❒	5.	Did team members report to respective stations?
❒	❒	6.	Did team members carry out all assigned duties (floor search, head count)?
❒	❒	7.	Were elevators brought to the main floor and held?
		Containment of Fire	
❒	❒	8.	Were all doors closed but not locked?
❒	❒	9.	Was a fire extinguisher taken to the location of the fire (if relevant)?
		Evacuation	
❒	❒	10.	Were corridors and exits kept clear?
❒	❒	11.	Did the evacuation proceed in a smooth and orderly manner?
❒	❒	12.	Did visitors to the building take part in the drill?
		Utilities	
❒	❒	13.	Were electric and gas appliances turned off?
❒	❒	14.	Were lights left on?
❒	❒	15.	Was the ventilating system shut down?
		Records	
❒	❒	16.	Were important documents and cash secured or prepared for removal?

_____

Signature of Floor Warden or Observer *Date*

Company Profile

Please complete and return to the Fire Safety Director

Date _____

Company name _____ Suite _____

Number of employees on-site _____

Type of business _____

Emergency contacts

Primary contact _____ Title _____

Phone: Home _____ Work _____

Secondary contact _____ Title _____

Phone: Home _____ Work _____

Number of handicapped employees on-site _____

Name _____ Wheelchair _____ Ambulatory ____

Name _____ Wheelchair _____ Ambulatory ____

Name _____ Wheelchair _____ Ambulatory ____

Name _____ Wheelchair _____ Ambulatory ____

Tenant floor captain _____ Phone _____

Tenant floor warden _____ Phone _____

Tenant Training Record

To comply with Section 173.910 Regulations Pertaining to Article IX High-rise Building Fire Prevention, Item 3. The instruction of all new regular building occupants in the emergency action procedure shall occur within 14 days of their assuming occupancy in the building.

Date _____

Tenant name _____ Floor/suite _____

Fire Safety Director _____ Phone _____

Floor Captain _____ Phone _____

Floor Warden _____ Phone _____

Floor Warden _____ Phone _____

Floor Warden _____ Phone _____

Floor Warden _____ Phone _____

Areas discussed

_____ Employee/public accident

_____ Fire procedure

_____ Elevator emergency

_____ Other - specify below:

_____ Tornado/high wind procedure

_____ Bomb threat

_____ Building/floor evacuation

_____

_____

_____

_____

I have received and reviewed with the Fire Safety Director or his/her designee a copy of the Emergency Action Plan for:

_____

_____
Tenant (Signature & Date)

_____ _____
Fire Safety Director (Signature & Date) *Chief of Security (Signature & Date)*

List of the Physically Impaired

Name	Room	Floor	Type of Disability	Assistance Monitors

Emergency Evacuation Procedures for Disabled Individuals

DEVELOPED THROUGH THE COOPERATIVE EFFORTS OF

LOS ANGELES CITY FIRE DEPARTMENT
200 N MAIN ST L A CAL 90012

Joni and friends
P O BOX 3225
WOODLAND HILLS CAL 91365

Important instructions for people with restricted mobility

Always

1. Have the fire department emergency number by your telephone.
2. When making a fire or medical emergency call to the fire department, give the correct location and describe your situation.
3. Know the location of the nearest fire alarm pull station and how to use it.
4. Know the location of the exit and alternate exit during an emergency evacuation. Always know of more than one exit.
5. Never use elevators during a fire.
6. Instruct co-workers or neighbors on how they can assist you.
7. Have an evacuation plan and practice it.

Remember

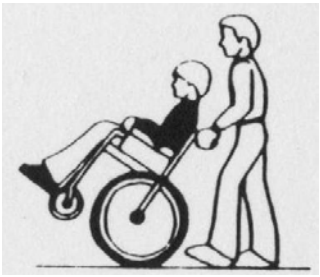
In an emergency, do not hesitate to inform others that you need assistance during an evacuation. Tell them what your condition is and be prepared to give instruction. Use this section as a training aid.

In chair evacuation

- Person in non-motorized wheelchair

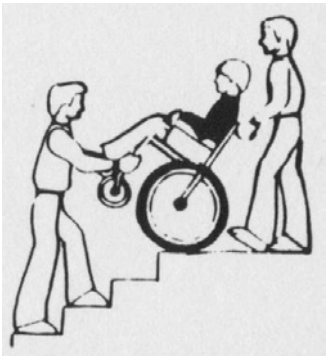
1. Unlock brake.

2. The chair is gently leaned backward and moved to the edge of the first step.

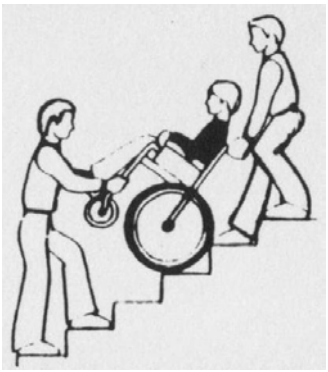


3. One helper steadies the chair by holding the rods to which the foot rests are attached.

   NOTE: Do not lift chair from bottom position.



4. The helper in the top position controls the descent of the chair by bending their legs slowly and taking most of the weight.

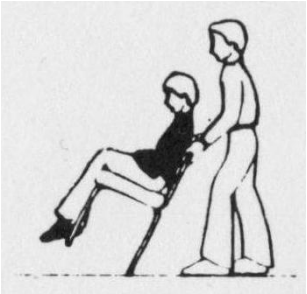


Office chair evacuation

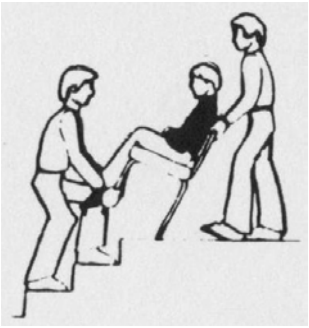
- Person in motorized wheelchair
- Person who appears to be fragile

1. Transfer the disabled individual into a sturdy office chair.
   NOTE: See lifting technique described in "Two Person Carry Fore and Aft."

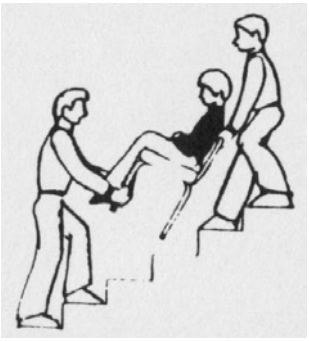
2. One helper gently leans the chair backward.



3. The other helper faces the chair and holds onto the front legs of the chair.



4. The helpers control the descent by bending legs slowly and keeping back erect.



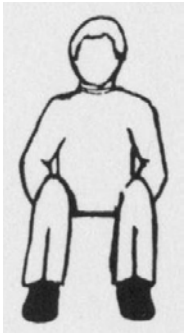
IMPORTANT: Never leave empty wheelchairs in stairwells!

Two Person Carry Fore and Aft

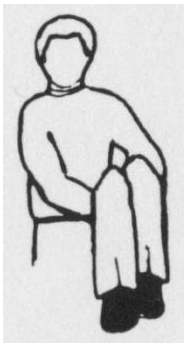
- Person in motorized wheelchair
- Person with limited walking ability
- Narrow stairwell

1. One helper reaches under arms and grasps the individual's right wrist with their left hand and left wrist with their right hand.

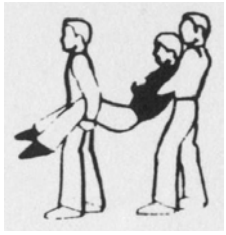
2a. If the disabled person is able to separate their legs, the other helper stands between their legs and lifts just above the knees.



2b. If the disabled person cannot separate their legs, the helper stands alongside and carries from that position.



3. Helpers control the descent by bending legs slowly and keeping the back erect.



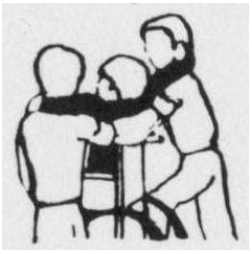
IMPORTANT: Never leave empty wheelchairs in stairwells!

Two Person Carry Side-By-Side

- Person in motorized wheelchair
- Person with limited walking ability
- Wide stairwell

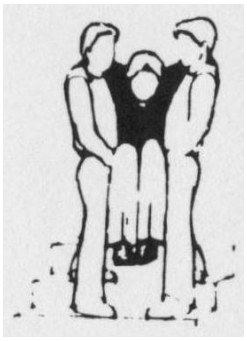
1. Helpers position themselves next to the wheelchair and grasp the other person's upper arm or shoulder.

2. The disabled individual places their arms around the helpers' necks.



3. The helpers then lean forward and place their free arm under the individual's legs and firmly grasps each others' wrists.

4. The helpers descend the steps at the same time.



IMPORTANT: Never leave empty wheelchairs in stairwells!

Emergency Exit Plan (Sample)

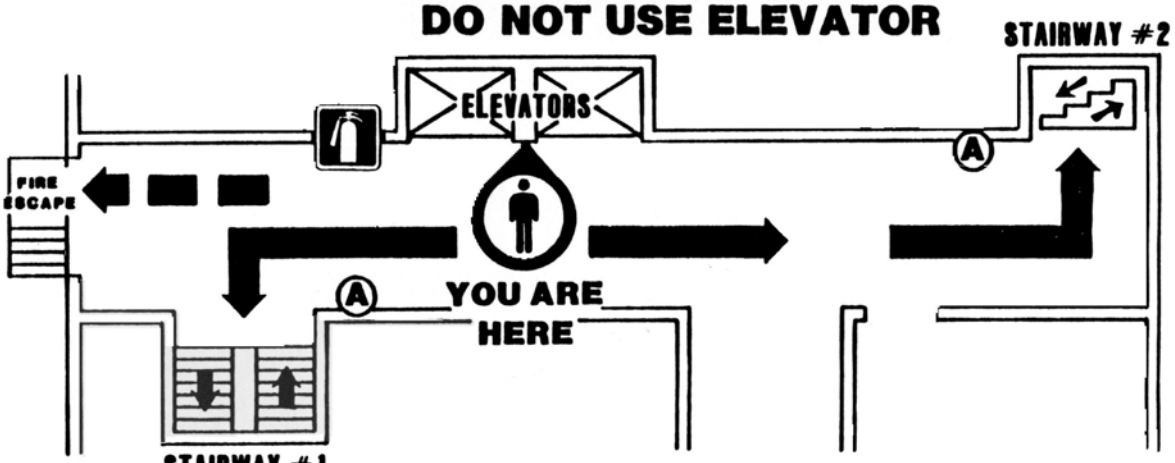
EMERGENCY EXIT PLAN

(SAMPLE ONLY)

OR (BUILDING EVACUATION PLAN)

(USE EITHER OF THE ABOVE)

IN CASE OF FIRE
USE STAIRWAY FOR EXIT
DO NOT USE ELEVATOR



A variety of SYMBOLS are acceptible. Select one and use it throughout.

NOT a continuous line....

ONLY to Fire Escapes.....

One sample shown here....

SYMBOLS

- (A) FIRE ALARM
- FIRE EXTINGUISHER
- PRIMARY EXIT ROUTE
- SECONDARY EXIT ROUTE
- STAIRWAY
- ELEVATOR

EMERGENCY TELEPHONE NUMBERS

FIRE DEPT. _____

OFFICE _____

SECURITY _____ (as applicable)

ADDRESS OF BUILDING

(NUMBER AND STREET ONLY)

FLOOR # (Opt.)

CIP APPROVAL

In Case of Fire, Do Not Use Elevator

THIS WILL SAVE LIVES

Increased emphasis on tenant safety in multiple floor buildings has created a need for new information emergency evacuation signs.

In conjunction with fire safety authorities, we have developed a plaque specifically designed for elevators. When mounted at each hall station, it would remind tenants that stairways, not elevators, should be used to evacuate the building during a fire. Our message, not to use elevators in a fire, is both graphically and verbally demonstrated and, therefore, is ideally suited for buildings with non-English reading tenants.

Our etched safety plaque is made of .032-inch thick metal. Bold black letters on a simulated stainless steel or simulated muntze bronze background with satin finish accentuate the safety message. Our standard plaque measures 7-inches by 5-inches wide with 4 holes for mounting.

Appendix I-B Stairway Identification Uniform Fire Code

1. PURPOSE

The purpose of this appendix is to provide information to the occupants and fire department personnel to ensure that they do not become confused during emergencies, by requiring that standardized signs be installed in stairways to inform the user which stair landing he is on and the upper and lower termination of the stairway.

2. SCOPE

The provisions of this section shall apply to new and existing buildings four or more stories in height.

3. SIGN

(a) The sign shall be a minimum 12 inches by 12 inches.

(b) The stairway location shall be placed at the top of the sign in 1-inch-high block lettering with ¼-inch stroke ("stair No. 1" or "west stair").

(c) The stairway's upper terminus shall be placed under the stairway identification in 1-inch-high block lettering with ¼-inch stroke ("roof access" or "no roof access").

(d) The floor level number shall be placed in the middle of the sign in 5-inch-high lettering with ¾-inch stroke. The mezzanine levels shall have the letter "M" preceding the floor number. Basement levels shall have the letter "B" preceding the floor number.

(e) The lower and upper terminus of the stairway shall be placed at the bottom of the sign in 1-inch-high block lettering with ¼-inch stroke.

(f) These signs shall be maintained in an approved manner.

Example: